

CLAIMS:

1. (Currently amended) A method of coating a carbon article with a metal by ~~cyclic voltammetrically electrodepositing~~ reductively electropolymerizing the metal on the carbon article through cyclic voltammetry, thereby forming a metal coating on the carbon article.
2. (Currently amended) The method according to claim 1, wherein said ~~electrodepositing~~ reductively electropolymerizing step includes immersing the carbon article in a solution containing a polymerizable and reducible metal compound.
3. (Canceled)
4. (Currently amended) The method according to claim ~~2~~ 3, wherein said ~~subjecting~~ reductively electropolymerizing step includes varying the electrical potential from about zero volts to about -1.0 volts with a rate of potential change of about 100 millivolts per second.
5. (Currently amended) The method according to claim 4, wherein said method further includes repeating the ~~subjecting~~ varying step until a sufficient metal coating is deposited on the carbon article.
6. (Withdrawn) A metal-coated carbon article formed by the method of claim 1.
7. (Withdrawn) The metal-coated carbon article according to claim 6, wherein said carbon article is selected from the group consisting essentially of carbon paper, carbon rods, and carbon electrodes.
8. (Withdrawn) The metal-coated carbon article according to claim 7, wherein said carbon article is an electrode.

9. (Withdrawn) The metal-coated carbon article according to claim 8, wherein said electrode is a fuel cell electrode.

10. (Withdrawn) The metal-coated carbon article according to claim 6, wherein said metal is selected from the group consisting essentially of platinum, gold, silver, palladium, ruthenium, rhodium, and iridium.

11. (Withdrawn) The metal-coated carbon article according to claim 10, wherein said metal-coated carbon article is a platinum-coated carbon electrode.

12. (Withdrawn) The metal-coated carbon article according to claim 11, wherein said coating is present in an amount less than about 0.1 mg/cm.².

13. (Withdrawn) A metal-coated carbon article comprising: a carbon article; and a metal coating disposed on an exterior surface of said carbon article, said coating being present in an amount less than about 0.1 mg/cm.².

14. (Withdrawn) The metal-coated carbon article according to claim 13, wherein said carbon article is selected from the group consisting essentially of carbon paper, carbon rods, and carbon electrodes.

15. (Withdrawn) The metal-coated carbon article according to claim 14, wherein said carbon article is an electrode.

16. (Withdrawn) The metal-coated carbon article according to claim 15, wherein said electrode is a fuel cell electrode.

17. (Withdrawn) The metal-coated carbon article according to claim 13, wherein said metal is selected from the group consisting essentially of platinum, gold, silver, palladium, ruthenium, rhodium, and iridium.

18. (Withdrawn) The metal-coated carbon article according to claim 16, wherein said metal-coated carbon article is a platinum-coated carbon electrode.

19. (Withdrawn) The metal-coated carbon article according to claim 13, wherein said coating is present in an amount less than about 0.08 mg/cm.².

20. (Withdrawn) The metal-coated carbon article according to claim 13, wherein said coating is present in an amount less than about 0.05 mg/cm.².

21. (Withdrawn) The metal-coated carbon article according to claim 13, wherein said coating is present in an amount less than about 0.03 mg/cm.².

22. (Withdrawn) The metal-coated carbon article according to claim 13, wherein said coating is capable of reducing oxygen in phosphoric acid, neutral, and basic media.

23. (Withdrawn) The metal-coated carbon article according to 22, wherein said metal-coated carbon article are capable of rendering active platinum surfaces for charge accumulation through hydrogen deposition and release.

24. (Currently amended) A method of coating a carbon article with a metal complex by controlled potentially—electrodepositing reductively electropolymerizing the metal on the carbon article by controlling potential, thereby forming a metal coating on the carbon article.